

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION

JAMES C. MOODY,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. H-10-1961
	§	
AQUA LEISURE INTERNATIONAL,	§	
et al.	§	
	§	
Defendants.	§	

**MEMORANDUM OPINION ON CLAIM CONSTRUCTION**

Pending before the court<sup>1</sup> are claim construction briefs filed by Plaintiff and Defendant NBGS International, Inc., ("NBGS").<sup>2</sup> Defendant Aqua Leisure International ("Aqua Leisure") joined NBGS's brief.<sup>3</sup> The court has considered all relevant filings and the applicable law. The court **ORDERS** following construction.

**I. CASE BACKGROUND<sup>4</sup>**

The patent at issue is United States Patent Number 4,805,896 (the "'896 Patent"). The subject of the '896 Patent is a "low rise water ride."<sup>5</sup> Plaintiff filed this action against one individual

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<sup>1</sup> The parties consented to proceed before the undersigned magistrate judge for all proceedings, including trial and final judgment, pursuant to 28 U.S.C. § 636(c) and Federal Rule of Civil Procedure 73. Docs. 37, 40-42.

<sup>2</sup> Defendant NBGS filed the claim construction brief "to state the position of the defendants" without admitting that the other defendants are proper parties to this case or have any connection to the patent. Doc. 32, Def. NBGS's Cl. Constr. Br., p. 1 n.1.

<sup>3</sup> Doc. 30, Def. Aqua Leisure's Cl. Constr. Br., p. 1.

<sup>4</sup> Portions of the background section are taken directly from prior court opinions.

<sup>5</sup> Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent.

and five businesses, alleging infringement of the '896 Patent and violations of state common law.<sup>6</sup>

Plaintiff filed the patent application on October 23, 1987.<sup>7</sup> An Office Action that issued in mid-1988 explained partial rejection of the patent due to indefiniteness and to obviousness in light of prior art.<sup>8</sup> Plaintiff responded to the Office Action in early September 1988, and the United States Patent and Trademark Office ("USPTO") issued the patent on February 21, 1989.<sup>9</sup>

On January 19, 1999, Plaintiff and Defendant NBGS entered an Assignment and Consulting Agreement ("Agreement") related to the '896 Patent.<sup>10</sup> The Agreement acknowledged Plaintiff's ownership of the rights to the patent and to the mark "TUBESCAPE" and related logos and designs.<sup>11</sup> Plaintiff assigned to Defendant NBGS all rights in the '896 Patent and the "TUBESCAPE" mark in exchange for \$24,000 plus a one-percent commission of the gross sales revenues and licensing revenues received by Defendant NBGS "directly

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<sup>6</sup> See Doc. 1, Pl.'s Original Compl.

<sup>7</sup> Id. at pp. 6-9.

<sup>8</sup> Doc. 32-3, Ex. 3 to Def. NBGS's Cl. Constr. Br., Office Action, pp. 3-4.

<sup>9</sup> Id. at Response to Office Action; Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent.

<sup>10</sup> See Doc. 50-2, Ex. A to Pl.'s Decl. in Supp. of his Resp. to Def. Aqua Leisure's Mot. for Summ. J., Agreement.

<sup>11</sup> Id. at p. 1.

attributable to the Tubescape Technology.”<sup>12</sup> Plaintiff also agreed to provide consulting services as requested by Defendant NBGS for hourly compensation.<sup>13</sup>

Defendant NBGS, Water Ride Concepts, Inc., (“WRC”) or Henry Schooley and Associates (“HS&A”) paid Plaintiff the agreed amount of \$24,000, consulting fees as they accrued, and a portion of the license fees but allegedly left other due compensation unpaid.<sup>14</sup> In 2009, Jeff Henry (“Henry”), chief executive officer of Defendant NBGS, informed Plaintiff that NBGS was “effectively out of business,” explaining that it had no employees or sales but a lot of debt.<sup>15</sup>

Plaintiff brought suit in June 2010 against Defendants Aqua Leisure, Bad Schloss Inc., (“Schloss”), NBGS, Henry, WRC, and HS&A.<sup>16</sup> In addition to patent infringement, Plaintiff alleged that: 1) Defendant NBGS and “its successors” Defendants Aqua Leisure, WRC, and/or Henry breached the Agreement; 2) all of the defendants breached the covenant of good faith and fair dealing; 3) all of the defendants “misappropriated, used and disclosed . . . trade secrets

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<sup>12</sup> Id. at pp. 1-2, 6-7.

<sup>13</sup> See id. at p. 1.

<sup>14</sup> Doc. 50-1, Pl.’s Decl. in Supp. of his Resp. to Def. Aqua Leisure’s Mot. for Summ. J., ¶ 30.

<sup>15</sup> Doc. 50-6, Ex. E to Pl.’s Decl. in Supp. of his Resp. to Def. Aqua Leisure’s Mot. for Summ. J., Letter from Henry to Plaintiff Dated Aug. 20, 2009; see also Doc. 50-1, Pl.’s Decl. in Supp. of his Resp. to Def. Aqua Leisure’s Mot. for Summ. J., Agreement, ¶ 32.

<sup>16</sup> See Doc. 1, Pl.’s Original Compl.

and proprietary information in violation of [the] Agreement;" 4) Defendants NBGS and Henry made fraudulent representations to induce Plaintiff to enter into the Agreement; and 5) Plaintiff was entitled to payment under theories of unjust enrichment and/or quantum meruit.<sup>17</sup> Plaintiff alleged that Defendants Henry, NBGS, HS&A, and WRC were alter egos of one another and that Defendant Aqua Leisure was a successor to NBGS.<sup>18</sup>

The court held a scheduling conference in December 2010 and set dates, including deadlines for initial and responsive claim construction briefs.<sup>19</sup> The parties timely filed their claim construction briefs in February 2011 and their responses in March 2011.<sup>20</sup> In May 2012, the court and the parties agreed that a hearing on claim construction was not necessary and the briefs were ready for the court's consideration.<sup>21</sup>

## II. LEGAL STANDARD FOR CLAIM CONSTRUCTION

In Markman v. Westview Instruments, Inc., the United States Supreme Court affirmed that the construction of patent claims is a matter of law exclusively for the court. 517 U.S. 370, 372 (1996). In order to fulfill its obligation, the court can rely on two types

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<sup>17</sup> Id. at pp. 6-9.

<sup>18</sup> Id. at pp. 4, 7.

<sup>19</sup> See Doc. 25, Min. Entry Order Dated Dec. 3, 2010; Doc. 26, Scheduling Order Dated Dec. 3, 2010.

<sup>20</sup> See Docs. 30-34, Cl. Constr. Brs. & Resps.

<sup>21</sup> Hr'g on May 16, 2012.

of evidence: intrinsic (e.g., claims language, patent specification, and prosecution history) and extrinsic (e.g., dictionaries, treatises, and expert and inventor testimony). Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

The particular order in which the court considers evidence is not critical; it is the weight attached to particular evidentiary sources that matters. Phillips v. AWH Corp., 415 F.3d 1303, 1324 (Fed. Cir. 2005). Intrinsic evidence is the "most significant source of the legally operative meaning of disputed claim language." Vitronics Corp., 90 F.3d at 1582.

According to claim construction principles, "claims are of primary importance[] in the effort to ascertain precisely what it is that is patented." Phillips, 415 F.3d at 1312 (quoting Merrill v. Yeomans, 94 U.S. 568, 570 (1876))(internal quotation marks omitted). Significant emphasis is placed on the words of the claims. See Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1324 (Fed. Cir. 2002); Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1344 (Fed. Cir. 2001). The words used in the patent claims are generally given their ordinary and customary meanings as understood by one of ordinary skill in the relevant art at the time of the invention (i.e., the effective filing date of the patent application) and in the context of the entire patent. Phillips, 415 F.3d at 1312-13, 1314-15.

Only in two circumstances is the "heavy presumption" in favor of the ordinary meaning overcome: "(1) where the patentee has chosen to be his own lexicographer, or (2) where a claim term deprives the claim of clarity such that there is no means by which the scope of the claim may be ascertained from the language used." Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001) (quoting Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989, 990 (Fed. Cir. 1999)) (internal quotation marks omitted). The proper interpretation may be readily apparent to a layperson, in which case the court should simply apply the widely accepted meanings of common words. Phillips, 415 F.3d at 1314.

However, when the meaning as understood by persons skilled in the art is not apparent, the court should look to other sources such as the patent specification, prosecution history, and extrinsic evidence for guidance. Id. The specification is "highly relevant to the claim construction analysis" and can be the "single best guide to the meaning of a disputed term." See Vitronics Corp., 90 F.3d at 1582. Statements affecting the scope of the invention may take the form of an express disclaimer of a particular claim construction or may offer interpretive assistance to the court in construing a claim. Prima Tek II, L.L.C. v. Polypap, S.A.R.L., 318 F.3d 1143, 1149 (Fed. Cir. 2003). Regardless of the specification's utility and reliability in this

regard, it is to be used only to interpret the meaning of a claim, not to confine the meaning to the specific embodiments of the invention. See Phillips, 415 F.3d at 1323; Dow Chem. Co. v. United States, 226 F.3d 1334, 1341-42 (Fed. Cir. 2000).

The patent prosecution history, or file wrapper, is also considered intrinsic evidence of the meaning of disputed claim language and should be considered if offered to the court. Phillips, 415 F.3d at 1317. The prosecution history includes the record of all communication with and proceedings before the USPTO, as well as the prior art cited during patent examination. Id. The prosecution history can often be informative by illustrating how the inventor understood the invention during prosecution and by indicating whether the inventor disclaimed any particular interpretation during such time. Id. Even so, Phillips instructs that, because the prosecution history is the product of ongoing negotiations between the inventor and the USPTO, it can often "lack[] the clarity of the specification and is thus less useful [in] claim construction." Id.

Extrinsic evidence is relevant to a lesser degree of reliance for the explanation of unclear patent claims. See id.; Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1373 (Fed. Cir. 2001). "Extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." Phillips,

415 F.3d at 1319.

The court may turn to dictionaries, especially technical dictionaries, and treatises if the court “deems it helpful in determining ‘the true meaning of language used in the patent claims.’” Id. at 1318 (quoting Markman, 52 F.3d at 980). Phillips instructs that the court must use these sources appropriately, keeping in mind the important role of intrinsic evidence in claim construction. Id. at 1321-22 (“[H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.”). The court also may consult extrinsic evidence for the purpose of understanding the technology at issue. Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1332 (Fed. Cir. 2001).

### III. CLAIM CONSTRUCTION OF THE '896

#### A. Background of the Patent

The '896 Patent involves technology for a “low rise water ride” in the field of amusement devices.<sup>22</sup> Water amusement devices seek to emulate the recreational sport of floating down a stream of water subject to rapids and other changes in water speed.<sup>23</sup> At the time of the '896 Patent application, most other types of water

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<sup>22</sup> Doc. 31-1, Ex. A to Pl.’s Opening Cl. Constr. Br., '896 Patent, col. 8, ll. 6-7.

<sup>23</sup> See id. at col. 1, ll. 13-23.



rides propelled participants by gravity from high elevations on curved channels covered with small amounts of water used to reduce friction during the descent.<sup>24</sup> The problem with those rides, according to the patent, was that participants spent more time waiting in line and/or walking up to the slide entrance than on the ride itself.<sup>25</sup>

To allow participants more time in the water, the current patent teaches "[a] water ride for swimmers [that] utilizes the linear movement of a large quantity of water of swimming depth at minimal slopes so that the swimmer is moved by the water rather than through it."<sup>26</sup> The swimmer is propelled through a circuitous channel with slow and fast velocity portions.<sup>27</sup> To create variations in the velocity and flow of the water, the channel varies in depth, width, slope, and curvature, and the water is pumped into the channel at two different rates.<sup>28</sup>

The course of the ride, in the preferred embodiment, "is configured generally in the form of an S-curve having an adjoining bottom loop" that makes a complete 360-degree circle around a reservoir with a straight segment connecting the top of the S-curve

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<sup>24</sup> Id. at col. 1, ll. 23-27.

<sup>25</sup> Id. at col. 1, ll. 27-29.

<sup>26</sup> Id. at abstract; see also col. 2, ll. 26-30.

<sup>27</sup> See id. at col. 2, ll. 30-36

<sup>28</sup> See id. at col. 2, ll. 36-41.

to the circular channel surrounding the reservoir.<sup>29</sup> Entrances and exits are located at various points on the straight and circular channels.<sup>30</sup> The reservoir is used for both water supply and water recreation.<sup>31</sup>

## B. Patent Claims

Of the twenty-eight claims in the '896 Patent, Claims 1 and 11 are independent.<sup>32</sup> The claims in dispute in this lawsuit are the two independent claims and dependent claims 2, 3, 4, 5, 6, 7, 8, 12, 14, and 15. These claims read as follows (with emphasis on the claim terms at issue):

1. A water ride for human participants comprising;  
a **continuous channel having at least one course through which water is conducted,**  
said channel having at least one elevated portion into which a large **predetermined** quantity of water is introduced for flow therethrough to a lower elevation and on which the participant is propelled,  
**pump means** for conducting a **large quantity of water** from a source of supply to the elevated portion of said channel at a **predetermined** rate,  
said channel and said **pump means** being interrelated in size and operated to maintain a continuously flowing body of water in said channel having a depth sufficient to permit a participant to float or swim thereon and **substantially prevent** such a floating or swimming participant from contacting the bottom of said channel, and

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<sup>29</sup> Id. at col. 4, ll. 17-23; see also id. at abstract; col. 2, ll. 32-36.

<sup>30</sup> Id. at abstract; col. 2, ll. 41-42; col. 5, ll. 34-49.

<sup>31</sup> Id. at abstract; col. 2, ll. 44-48, col. 4, ll. 61-63.

<sup>32</sup> See id. at col. 9, l. 63 to col. 10, l. 16; col. 11, l. 8 to col. 12, l. 3.

**entrance means** on the elevated portion of said channel for allowing participants to enter the channel at the point through which the **large quantity of water** is being conducted.

2. A water ride according to claim 1 in which the rate at which said water is introduced into said elevated portion and channel slope therefrom are such a participant is moved through said course at selected velocities.

3. A water ride according to claim 1 including; a water reservoir for supplying the water for said channel located and sized for use for swimming, wading, sunbathing, **diving** and other water recreation, and

said **pump means** having an inlet in fluid communication [sic] with said reservoir for conducting water from said reservoir into the elevated portion of said channel at a rate sufficient to maintain said continuously flowing body of water in said channel having a depth sufficient to permit a participant to float or swim thereon and **substantially prevent** such a floating or swimming participant from contacting the bottom of said channel.

4. The water ride according to claim 3 in which the area of said reservoir being of sufficient size such that the water depth will change less than one foot on operation of cessation of operation of said **pump means**.

5. A water ride according to claim 1 in which said continuous channel configured along its length to have variations in depth, width, slope, and curvature to produce variations in the velocity and flow characteristic of the water flowing therethrough.

6. A water ride according to claim 5 in which said **large quantity of water** introduced into said elevated portion and the slope of the channel therefrom are such that a participant s [sic] moved through said **circuitous course** at **predetermined** velocities.

7. A water ride according to claim 5 including;

a water reservoir for supplying the water for said channel located and sized for use for swimming, wading, sunbathing, **diving** and other water recreation, and  
said **pump means** having an inlet in fluid communication with said reservoir for conducting water from said reservoir into the elevated portion of said channel.

8. The water ride according to claim 7 in which the area of said reservoir being of sufficient size such that the water depth will change less than one foot on operation or cessation of operation of said **pump means**.

. . . . .

11. A water ride for human participants comprising;  
a continuous channel having at least one **circuitous course** through which water is conducted,  
said channel having at least one elevated portion into which a **large predetermined quantity of water** is introduced for flow therethrough to a lower elevation and on which the participant is propelled,  
the quantity of water at the elevated portion having a weight substantially greater than the weight of the participant whereby the participant is moved by flow of the water through the **circuitous course** at a **predetermined** velocity while maintaining a depth sufficient to allow the participant to swim in the water or float on the water surface,  
said channel having a first portion through which water flows at a first **predetermined** rate and a second portion adjoined thereto and in fluid communication therewith and through which water flows at a rate greater than the first rate,  
**pump means** for conducting a **large quantity of water** from a source of supply to the elevated portion of said channel at a **predetermined** rate comprising first **pump means** for conducting water through the first portion of said channel at the first **predetermined** rate and second **pump means** for conducting water through the second portion of said channel at the second **predetermined** rate,  
said channel and said **pump means** being interrelated in size and operated to maintain a continuously

flowing body of water in said channel having a depth sufficient to permit a participant to float or swim thereon and **substantially prevent** such a floating or swimming participant from contacting the bottom of said channel,

**entrance means** on the elevated portion of said channel for allowing participants to enter the channel at the point through which the **large quantity of water** is being conducted,

said continuous channel configured along its length to have variations in depth, width, slope, and curvature to produce variations in the velocity and flow characteristic of the water flowing therethrough,

a water reservoir for supplying the water for said channel located and sized for use for swimming, wading, sunbathing, **diving** and other water recreation, and partitioned into one or more deeper areas for **diving** and other recreational water activities, and

said **pump means** having an inlet in fluid communication with said reservoir for conducting water from said reservoir into the elevated portion of said channel,

**main entry means** on the first portion of said channel for allowing participants to enter the channel, and

**main entry means** and **exit means** on the second portion of said channel for allowing participants to enter and exit the channel.

12. A water ride according to claim 11 in which said **main entry means** on the first portion of said channel is elevated a **predetermined** distance relative to the **entry means** on the second portion.

. . . . .

14. A water ride according to claim 11 including;  
a water reservoir for supplying the water for said channel and also to be used for swimming, wading, sunbathing, **diving** and other water recreation, and the inlets for said first and second **pump means** in fluid communication with said reservoir for conducting water from said reservoir into said channel first and second portions respectively.

15. The water ride according to claim 14 in which

the area of said reservoir being of sufficient size such that the water depth will change less than one foot on operation or cessation of operation of said pumps.<sup>33</sup>

**C. Terms in Dispute**

Defendant NBGS's claim chart provides rewording for every element of each disputed claim. Plaintiff contends that no construction is needed for many of the claim elements. Defendant NBGS construed the preamble of claim 1 to mean "A ride for humans which uses water to propel the rider," and Plaintiff agrees.<sup>34</sup> That is the extent of their agreement on construction of the '896 Patent.

Despite varying degrees of disagreement on the proper construction of every element in each claim at issue, the parties focus on eight terms and phrases in their briefs. The court addresses each of the eight terms and phrases, noting the particular concerns raised by the parties in their briefs and resolving their disputes. By doing so, the court resolves the majority of the parties' construction disagreements. As to the remaining points of dispute, the court finds no other terms need construction.

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<sup>33</sup> Id. at col. 9, l. 63 to col. 10, l. 65; col. 11, l. 8 to col. 12, l. 3; col. 12, ll. 9-21 (emphasis added & emphasis omitted).

<sup>34</sup> Doc. 32-2, Ex. 2 to Def. NBGS's Cl. Constr. Br., Cl. Chart, p. 1; Doc. 33, Pl.'s Resp. to Def. NBGS's Cl. Constr. Br., p. 2.

1. A Continuous Channel Having at Least One Course Through Which Water is Conducted (Cl. 1)

Plaintiff contends that the meaning of these words is readily apparent, and they should be construed to mean "a channel with at least one route for water to travel."<sup>35</sup> Defendant NBGS construes this phrase to include the term "circuitous course" because, it explains, dependent claim 6 prefaces "circuitous course" with the word "said" and, although "circuitous course" does not appear in any prior claim, "course" appears in claim 1.<sup>36</sup> Therefore, according to Defendant NBGS, Plaintiff "[c]learly, . . . intended the continuous channel in claim 1 to be a circuitous course."<sup>37</sup> The court disagrees with Defendant NBGS.

In claim 6, "said" appears to modify "circuitous course."<sup>38</sup> Although the adjective "said" denotes prior mention of the noun it modifies, it hardly serves as a basis for imposing an additional limitation on a prior claim where there is no mention of a "circuitous course." Claim 1 teaches only "a continuous channel having at least one course through which water is conducted." To insert the word "circuitous" between "one" and "course" would

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<sup>35</sup> Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 8.

<sup>36</sup> See Doc. 34, Def. NBGS's Resp. to Pl.'s Opening Cl. Constr. Br., p. 12, n.2.

<sup>37</sup> Id.

<sup>38</sup> Possibly, "said" was intended to modify "course," but that is not supported by the sentence structure. Stylistically, the absence of a comma or hyphen between "said" and "circuitous" suggests that "circuitous" modifies "course," and "said" modifies "circuitous course."

violate the rules of patent construction by reading an additional limitation into claim 1 (and all prior dependent claims).

The court adopts Plaintiff's construction for the phrase that appears in claim 1. "[A] continuous channel having at least one course through which water is conducted" means "a channel with at least one route for water to travel."

2. Circuitous Course (Cls. 6, 11)

Plaintiff contends that the addition of the word "circuitous" to the description of the channel simply means that "the path through which some water is conducted makes a circuit and ends near where it begins."<sup>39</sup> Defendant NBGS argues that the term is ambiguous within the claims but that Plaintiff defined it in the specification as "a course configured generally in the form of an S-curve with a complete 360-degree circular portion at the bottom with a straight connecting portion from the circle to the top of the S-curve."<sup>40</sup> The court disagrees with both interpretations.

Plaintiff misconstrues "circuitous" as the adjective form of "circuit" when, in fact, "circuital" is the adjective form of "circuit." Actually, the commonly understood meaning of "circuitous" is indirect and lengthy. The court finds no reason to believe that this word carries any special meaning to skilled artisans in the field.

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<sup>39</sup> Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 8.

<sup>40</sup> Doc. 32, Def. NBGS's Cl. Constr. Br., p. 13.



In order for the court to deviate from the commonly understood meaning, it would need to find that either Plaintiff clearly redefined the term or the scope of the patent could not be ascertained from the language used. Bell Atl. Network Servs., Inc., 262 F.3d at 1268. Defendant NBGS suggests that the former is true, pointing to the following statement in the background section of the patent: "A circuitous course is configured generally in the form of an S-curve with a complete 360° circular portion at the bottom with a straight connecting portion from the circle to the top of the S-curve."<sup>41</sup>

Although that statement provides a detailed example of a "circuitous course," it does not clearly express the intent to disavow all other embodiments by redefining "circuitous course" to mean only one configuration. The term "generally" in the description belies a contrary assumption. Additionally, the specification describes that specific configuration as the preferred embodiment. The court is not willing to confine the meaning of "circuitous course" to the preferred embodiment of the invention without a clearer indication that Plaintiff intended to do so. See Phillips, 415 F.3d at 1323; Bell Atl. Network Servs., Inc., 262 F.3d at 1268.

This is also not a situation in which the ordinary meaning of the term lacks "sufficient clarity to permit the scope of the claim

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<sup>41</sup> Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent, col. 2, ll. 32-36; see also id. at Abstract.

to be ascertained from the words alone.” Teleflex, 299 F.3d at 1325; see also Bell Atl. Network Servs., Inc., 262 F.3d at 1268.

Therefore, the court construes “circuitous course” to mean “an indirect and lengthy route.”

### 3. Terms Using “Means”

Means-plus-function is an important claim construction concept specifically relevant to the interpretation of the patent asserted in this case. See 35 U.S.C. § 112(f).<sup>42</sup> A means-plus-function claim element triggers 35 U.S.C. § 112(f) (“Section 112(f)”), which allows an applicant to express a claim limitation “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof,” and provides that “such claim[s] shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112(f); see also Ergo Licensing, LLC v. CareFusion 303, Inc., 673 F.3d 1361, 1363 (Fed. Cir. 2012).

In other words, a means-plus-function claim element allows the patentee to use a generic means to express a claim limitation, but the specification must disclose the corresponding structure. Ergo Licensing, LLC, 673 F.3d at 1363 (quoting Biomedino, LLC v. Waters

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<sup>42</sup> In 2011, the U.S. Congress amended 35 U.S.C. § 112. Among other changes, the undesignated paragraphs previously cited numerically according to their order were restructured as subsections with alphabetical designations. 35 U.S.C. § 112, Amends. The amendments took effect on September 16, 2012, but they only apply to patent applications filed on or after that date. Id. at Effective & Applicability Provisions. Because the new structure has no substantive effect, the court uses the new designation for the means-plus-function subsection.

Techs. Corp., 490 F.3d 946, 948 (Fed. Cir. 2007)). Thus, construction of a means-plus-function limitation consists of two steps: (1) identifying the claimed function, and (2) determining what, if any, structure in the specification corresponds with that function. Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1113 (Fed. Cir. 2002). The court must construe the function to include only those limitations in the claim language. Id. "It is improper to narrow the scope of the function beyond claim language" or to broaden the scope by disregarding limitations in the claims themselves. Id. (indicating further that "[o]rdinary principles of claim construction govern interpretation of the claim language used to describe the function").

In determining what structure corresponds to the construed function, Section 112(f) limits claims to the structures, materials, or acts disclosed in the specification, and their equivalents, that perform the said function(s). 35 U.S.C. § 112(f). In other words, to qualify as corresponding, the structure must not only perform the claimed function, but the specification or prosecution history must clearly link or associate the structure with performance of the particular function as would be understood from the perspective of a person of ordinary skill in the relevant art. Cardiac Pacemakers, Inc., 296 F.3d at 1113; see also Ergo Licensing, LLC, 673 F.3d at 1363 (quoting Med. Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1219 (Fed. Cir.

2003)). The failure to disclose an adequate structure renders the claim invalid as indefinite. Ergo Licensing, LLC, 673 F.3d at 1363.

A presumption that the drafter intended to invoke this statutory provision arises when a claim includes the term "means for" to describe a limitation. Masco Corp. v. United States, 303 F.3d 1316, 1326 (Fed. Cir. 2002); Rodime PLC v. Seagate Tech., Inc., 174 F.3d 1294, 1302 (Fed. Cir. 1999). However, "[m]erely because a named element of a patent claim is followed by the word 'means' . . . does not automatically make that element a 'means-plus-function' element under [Section 112(f)]." Cole v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed. Cir. 1996). Whether the statute applies to a claim including the word "means" depends on an element-by-element analysis. See id. By its own terms, the statute only applies if the claim element itself specifies a function but does not identify a corresponding structure for the stated function. Rodime PLC, 174 F.3d at 1302; Cole, 102 F.3d at 531. "A claim term recites sufficient structure if the term, as the name for structure, has a reasonably well understood meaning in the art." Allen Eng'g Corp. v. Bartell Indus., 299 F.3d 1336, 1347 (Fed. Cir. 2002) (quoting Watts v. SL Sys., Inc., 232 F.3d 877, 880-81 (Fed. Cir. 2000)) (internal quotation marks omitted); see also Rembrandt Data Techs., LP v. AOL, LLC, 641 F.3d 1331, 1341 (Fed. Cir. 2011).

Examples abound of when the structure is sufficiently detailed, either in the claim itself or in the specification, and when it is not. The Federal Circuit determined last year that the terms "trellis encoding means" and "fractional rate encoding means" were self-descriptive to skilled artisans based on expert testimony to that effect and, therefore, did not implicate Section 112(f). Rembrandt Data Techs., LP, 641 F.3d at 1341. In a prior case the Federal Circuit found, when deciding whether the specification of a patent included sufficient structure to support a means-plus-function claim, that the term "controller" was recognizable to those skilled in the art "as an electronic device with a known structure." Telcordia Techs., Inc. v. Cisco Sys., Inc., 612 F.3d 1365, 1376-77 (Fed. Cir. 2010). The Federal Circuit also found that a claim element teaching the use of "perforation means" fell outside the means-plus-function statute because it "describe[d] the structure supporting the tearing function (i.e., perforations)." Cole, 102 F.3d at 531. The court added that the claim included more than just the structure in that it identified the location and extent of the structure. Id.

In 2004, the Federal Circuit considered whether a claim limitation that recited a "pumping means . . . including a nozzle and venturi tube in alignment with the nozzle" overcame the means-plus-function presumption by including sufficient structure. TI Grp. Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C., 375 F.3d

1126, 1135 (Fed. Cir. 2004). The Federal Circuit overturned the district court's construction, which included several other elements. Id. "There is no indication in the patent that the function found by the district court, namely 'to pump fuel into the reservoir' require[d] anything other than the structure recited in the claim." Id. (internal citations omitted).

By way of contrast, an opinion earlier this year noted as an aside that a claim describing a "system memory means" failed to overcome the presumption of means plus function because "nowhere in the language of the limitation [was] there a specific and definite structure" corresponding to the recited function. Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC, 677 F.3d 1361, 1367 n.1 (Fed. Cir. 2012). In Blackboard, Inc. v. Desire2Learn, Inc., 574 F.3d 1371, 1382, 1383 (Fed. Cir. 2009), the structure for a "means for assigning" function was identified in the specification as "a server computer with an access control manager and equivalents thereof," but the patent as a whole contained "no description of the structure or the process that the access control manager use[d] to perform the 'assigning' function." The Federal Circuit found the claim invalid for indefiniteness because the disclosure of a computer as the structure for that particular function was insufficient. Id. at 1383-84 (noting that the Federal Circuit requires more structure than simply a general purpose computer for cases involving computer-implemented inventions). The

fact that a person of ordinary skill in the art could devise a means to perform the recited function is not enough. Id. at 1385. Rather, that skilled artisans could carry out the function in a variety of ways is precisely why the patent must disclose the particular structure claimed. Id.

The Federal Circuit found that, where claims including "closure means" recited functions for the means but did not "explicitly recite[] the structure, material, or acts needed to perform these functions," the claims were subject to Section 112(f). Sage Prods., Inc. v. Devon Indus., 126 F.3d 1420, 1428 (Fed. Cir. 1997). Similarly, in Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1536 (Fed. Cir. 1991), the court stated that the "recitation of some structure" in a means-plus-function claim does not preclude the applicability of Section 112(f) when the structural description in a means clause "merely serves to further specify the function of that means."

Turning to the two phrases in the '896 Patent that contain the word "means," the court first examines whether Section 112(f) applies.

a. Pump Means (Cls. 1, 3, 4, 7, 8, 11, 14)

Plaintiff argues that the presumption of means-plus-function arising from the use of the word "means" is overcome in this case because the claim sufficiently discloses the structural element, to

wit, a pump.<sup>43</sup> The term, according to Plaintiff, should be construed as "water pump."<sup>44</sup>

Defendant NBGS disagrees that the means-plus-function presumption is overcome and looks to the specification for description of the pump and related structure.<sup>45</sup> Defendant NBGS offers the following very detailed interpretation of the structure for the pump means:

A "large" quantity of water is conducted at a rate determined beforehand from a reservoir to an elevated portion of the water ride by pumps. The first and second pump means are two high volume horizontal axis flow electric motor pumps that are used normally for flood control applications. The first pump conducts the water to a higher elevation through a straight flume and the second pump conducts water to another elevation that is less than the elevation for the first pump through a slanted flume. The flumes are underground flumes with concrete tops. The flumes have retaining side walls for support and are used for water guides. The exit of each flume has a vertical grate for safety. The concrete tops of the flumes are also used as walkways.

The pumps conduct the "large" quantity of water from the source of supply by inlet pits that are specially designed to let water enter slowly. Each pit is a long narrow configuration having a sloping bottom wall, a short vertical wall at one end, a longer vertical wall at the opposite end, and opposed vertical side walls. A circular opening in the longer end wall receives a pump inlet pipe with extends from the pit to the pump. The depth of the pit increases toward pump inlet pipe for even flow. A plurality of removable vertical bars extend across the circular opening to provide a grate for safety, and to prevent objects from being sucked into the pump. The opening top of each pit is covered by a

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<sup>43</sup> Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 9.

<sup>44</sup> Id.

<sup>45</sup> Doc. 32, Def. NBGS's Cl. Constr. Br., pp. 11-12.



removable top or lid comprising one or more rectangular precast reinforced concrete slabs having a plurality of parallel plastic pipes extending vertically therethrough to form orifices. A preferred lid utilizes a plurality of 2 inch diameter plastic pipes on 4 inch centers. The total collective area of the orifices is approximately 1.5 times that of the pump inlet pipe. With the orifices on 4 inch centers, the surface ratio is approximately 7.5 to 1. The preferred pit is approximately 7 feet wide to provide support for the precast top slabs. The apertured top of the inlet pit to the pump is designed with the orifices spread over a large enough area to avoid dangerous currents, suction, or vortexes.<sup>46</sup>

The court generally agrees with Plaintiff.

The term "pump means" appears multiple times in the dependent claims, but, in each of those claims, the term refers back to one of the two independent claims.<sup>47</sup> On first appearance in each of the independent claims, the element reads, "pump means for conducting a large quantity of water from a source of supply to the elevated portion of said channel at a predetermined rate."<sup>48</sup> Claim 11 includes additional limitations involving the use of a "first pump means for conducting water through the first portion of said channel at the first predetermined rate" and a "second pump means for conducting water through the second portion of said channel at the second predetermined rate."<sup>49</sup> Both claims 1 and 11 teach that the channel and the pump means are "interrelated in size and

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<sup>46</sup> Id. at p. 12.

<sup>47</sup> See Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent, col. 10, 11. 27, 39, 57, 65; col. 12, 1. 13.

<sup>48</sup> Id. at col. 10, 11. 3-5; col. 11, 11. 27-29.

<sup>49</sup> Id. at col. 11, 11. 30-34.

operated to maintain a continuously flowing body of water in said channel.”<sup>50</sup> Claims 3 and 11 also teach that the pump means has “an inlet in fluid communication with said reservoir for conducting water from said reservoir into the elevated portion of said channel.”<sup>51</sup>

The function of the “pump means” in both claims is to conduct water from the source to the channel at a predetermined rate. There does not seem to be a dispute about the function. Where the parties differ on whether the claims are subject to Section 112(f) as means-plus-function elements is in the sufficiency of the description of the structure within the claims themselves. If the claims include sufficiently specific and definite detail to inform one of skill in the field what the corresponding structure is, the claims do not fall within the means-plus-function statute. See Rodime PLC, 174 F.3d at 1302; Cole, 102 F.3d at 531. The court begins with the word “pump.”

To determine the ordinary meaning of “pump” as understood by skilled artisans in the field, the court relies on the definition found in a technical dictionary, which explains that, in the field of mechanical engineering, a “pump” is “[a] machine that draws fluid into itself through an entrance port and forces the fluid out

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<sup>50</sup> Id. at col. 10, ll. 6-8; col. 11, ll. 35-37.

<sup>51</sup> Id. at col. 11, ll. 57-60. The claim 3 language apparently includes a typographical error, stating, “pump means having an inlet in fluid communication ion with said reservoir . . . .” Id. at col. 10, ll. 27-29.

through an exhaust port.” McGraw-Hill Dictionary of Scientific & Technical Terms 1608 (5<sup>th</sup> Ed. 1994); see also Bell Atl. Network Servs., Inc., 262 F.3d at 1268-69 (indicating that extrinsic evidence may be consulted to ascertain the ordinary meaning of a claim term).

As with the terms “trellis encoding means,” “fractional rate encoding means,” and “perforation means” discussed in Federal Circuit opinions, “pump means” is self-descriptive to those skilled in the field. Cf. Rembrandt Data Techs., LP, 641 F.3d at 1341; Cole, 102 F.3d at 531. The usage here is consistent with the Federal Circuit’s decision in TI Group Automotive Systems (North America), Inc. There, the court found that the description of a pumping means with a nozzle and venturi tube in alignment with the nozzle was sufficient to remove the claim from means-plus-function analysis. TI Grp. Auto. Sys. (N. Am.), Inc., 375 F.3d at 1135.

Here, the claim language identifies the location of the pump (between the water source and the channel), specifies that the pump and channel be interrelated and that a continuous flow be maintained, and dictates that the pump move the water at a predetermined rate. Claims 3 and 11 describe an inlet in fluid communication with the reservoir.<sup>52</sup> The court finds that the term “pump means” in combination with the other structural components disclosed in the claims provide sufficient structure to perform the

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<sup>52</sup> Interestingly, claim 15 refers to “said pumps,” even though all prior claims refer to “pump means.” See id. at col. 12, ll. 20-21.

function of conducting water from the reservoir to the channel at a predetermined rate. Cf. Rodime PLC, 174 F.3d at 1304 (stating that "the claim need only recite 'sufficient' structure to perform entirely the claimed function").

The "pump means" claim elements are not subject to Section 112(f). The structure required to conduct the water from the reservoir to the channel is a "pump."

b. Entrance Means, Main Entry Means, and Exit Means (claims 1, 11, 12)

Plaintiff takes the position that means-plus-function presumption is overcome as to these "means" claim elements as well. Plaintiff argues that "the claim terms themselves amply disclose[] the structural elements of an entrance or exit, their locations, and the location of entry or exit into or out of the ride."<sup>53</sup> Plaintiff construes these terms as entrances and exits at the locations indicated in the claims.<sup>54</sup>

Defendant NBGS does not discuss in its brief the specifics of its proffered definitions for these terms but, as with "pump means," argues for the application of means-plus-function analysis and looks to the specification for the description of structure corresponding to the entrance and exit means terms.<sup>55</sup> For "entrance means" in claim 1, Defendant NBGS provides this description of the

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<sup>53</sup> Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 11.

<sup>54</sup> Id. at p. 12.

<sup>55</sup> See Doc. 32, Def. NBGS's Cl. Constr. Br., p. 13.

structure:

Providing the participant with two different main entrances in order to enter the water ride. Each entrance means is 2 feet wide, 1.7 feet deep, and approximately 20 feet long and the rear 4-foot portion of each entry area tapers downwardly and inwardly into the channel for drainage and safety of the participants.

The first main entrance is for the first portion of the channel, which is [a] channel 20 feet wide with a water depth of 3.5 feet. The first main entrance allows the participants to slowly float down stream a distance of 130 feet with 80,000 GPM [gallons per minute] of water at a speed of 2.54 FPS [feet per second] and enter the channel.

The second main entrance means has both an entrance and exit for the channel for the participant. The second main entrance is 30 feet wide with a water depth of 3.5 feet and allows the participant to slowly float down stream at 2.65 FPS with 125,000 GPM of water to the channel.<sup>56</sup>

For "entrance means" in claim 11, Defendant NBGS provides a similar, but shorter, structure:

Providing the participant with two different entrances in order to enter the water ride, such entrances must be at an elevated portion of the ride and subject the participant to a large quantity of water. Each entrance means is 2 feet wide, 1.7 feet deep, and approximately 20 feet long and the rear 4-foot portion of each entry area tapers downwardly and inwardly into the channel for drainage and safety of the participants.<sup>57</sup>

In addition to the above paragraph, Defendant NBGS adds the following two additional paragraphs for "main entry means and exit means:"

The first main entrance is for the first portion of the

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<sup>56</sup> Doc. 32-2, Ex. 2 to Def. NBGS's Cl. Constr. Br., Cl. Chart, p. 3.

<sup>57</sup> Id. at p. 9.

channel, which is [a] channel 20 feet wide with a water depth of 3.5 feet. The first main entrance allows the participants to slowly float down stream a distance of 130 feet with 80,000 GPM of water at a speed of 2.54 FPS and enter the channel.

The second main entrance means has both an entrance and exit for the channel for the participant. The second main entrance is 30 feet wide with a water depth of 3.5 feet and allows the participant to slowly float down stream at 2.65 FPS with 125,000 GPM of water to the channel.<sup>58</sup>

The court agrees with Defendant NBGS as to the application of Section 112(f) but not entirely with regard to the corresponding structure.

"Entrance means" appears in both of the independent claims in identical claim limitations: "entrance means on the elevated portion of said channel for allowing participants to enter the channel at the point through which the large quantity of water is being conducted."<sup>59</sup> Claim 11 also teaches the inclusion of "main entry means" and "main entry means and exit means."<sup>60</sup> Claim 12 refers to the "main entry means" and "entry means" without including structural detail other than the requirement that the "main entry means" be elevated in relation to the "entry means."<sup>61</sup>

The function of these terms is consistently to enter or exit

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<sup>58</sup> Id. at p. 11.

<sup>59</sup> Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent, col. 10, ll. 13-16; col. 11, ll. 42-45

<sup>60</sup> Id. at col. 11, ll. 61-65.

<sup>61</sup> Id. at col. 12, ll. 1-3.

the channel.<sup>62</sup> The function is not in issue; however, the parties disagree on the application of Section 112(f). Again, the court begins with the understanding of "entrance" and "exit" held by a skilled artisan. The word "entrance" is defined in engineering terms as "[a] place of physical entering, such as a door or passage." McGraw-Hill Dictionary of Scientific & Technical Terms 685 (5<sup>th</sup> Ed. 1994). "Exit" is defined in the technical dictionary according to the common English meaning of "[a] door, passage, or place of egress." Id. at 716.

Although the words themselves are commonly understood and self-descriptive as to their function, they do not dictate any structure. The dictionary definitions allow for more than one possible structure: a door, a passage, a place of egress (or ingress). Even an ordinary layperson might imagine that a water channel may be entered or exited by way of stairs, ladder, sloped pavement, or other means. This leads the court to conclude that persons skilled in the art could envision multiple structures for entering and exiting the channel. When the function can be carried out in a variety of ways left to the imagination of one of ordinary skill in the art, a particular structure is not identified. See Blackboard, Inc., 574 F.3d at 1385 (pointing out that it is precisely when a function can be carried out in different ways that the patent must disclose the structure claimed).

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<sup>62</sup> See id. at col. 10, ll. 13-16; col. 11, ll. 42-45, 61-65.

Thus, in the case of the entry and exit means terms, the requirements of the statute are met. The specification must provide the corresponding structure to achieve the recited function. The locations and spacing of the entrances and exits are explained throughout the specification, but the court's focus is on the description of the structure.

The patent recites the structure of the entrances in nearly identical phrasing in the description of the preferred embodiment and the discussion of the operation of the ride. In the preferred embodiment, the patent teaches that "[e]ach entry area is 2 feet wide, 1.7 feet deep and approximately 20 feet long. The rear portion of each entry area, approximately four feet in length, tapers downwardly and inwardly into the channel for drainage and safety of the participants."<sup>63</sup> Two of the entrances in the preferred embodiment are described as 8.55 feet higher than the reservoir and two others are an additional 6.39 feet high.<sup>64</sup> The description of the preferred embodiment also teaches a submerged exit ramp and sloped walk way back to an entrance.<sup>65</sup>

The entrance and exit means terms are properly construed to cover the corresponding structure described in the preceding

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<sup>63</sup> Id. at col. 5, ll. 44-49; see also id. at col. 8, ll. 46-50.

<sup>64</sup> Id. at col. 6, ll. 59-63. Claim 12 states in less explicit terms that the "main entry means on the first portion of said channel is elevated a predetermined distance relative to the entry means on the second portion." Id. at col. 12, ll. 1-3.

<sup>65</sup> Id. at col. 6, ll. 52-53.



paragraph and equivalents thereof. See 35 U.S.C. § 112(f); Ergo Licensing, LLC, 673 F.3d 1361, 1363.

4. Substantially Prevent (Cls. 1, 3, 11)

Plaintiff explains that this term was added to distinguish the '896 water ride from prior water slides in which the participant was in contact with slide surface for the majority of the ride and water was used only as a lubricant to reduce friction.<sup>66</sup> Plaintiff's invention, he explains, differs from the prior art because it uses the water to convey the participant through a channel without touching the bottom of the channel for most of the ride.<sup>67</sup> Plaintiff defines "substantially prevent" to mean that the participant is "mostly or generally" prevented from contacting the bottom by the depth of the water, not that the participant can never touch the bottom of the channel.<sup>68</sup>

Defendant NBGS points to language in Plaintiff's response to USPTO's office action, in which Plaintiff distinguished his invention from prior art by explaining that "the water [would be] deep enough for the participant to float or swim on the top of the water without touching the surface of the channel."<sup>69</sup> From this language, Defendant NBGS contends that this claim element should be

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<sup>66</sup> See Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 9.

<sup>67</sup> See id.

<sup>68</sup> See id.

<sup>69</sup> Doc. 32-3, Ex. 3 to Def. NBGS's Cl. Constr. Br., Resp. to Office Action, p. 8.

read to mean "the participants can both float and swim in the channel without being able to touch the bottom surface of the channel."<sup>70</sup> Defendant NBGS also includes in its definition a disavowal of any "water slide where the participant slides along a thin layer of water at the bottom of the channel with the water merely lubricating or otherwise facilitating the rider."<sup>71</sup>

Both parties acknowledge that Plaintiff limited the scope of the patent in response to the office action. Both agree that the patent does not cover water slides. However, Defendant NBGS takes its construction too far.

Clearly, "substantially prevent" does not mean "prevent." Yet that is precisely the construction Defendant NBGS proposes. The language it relies on in the prosecution history is the obverse of its proposed construction. That is, Plaintiff represented the ride would contain enough water that a participant could float or swim without touching the bottom surface of the channel, and Defendant NBGS turns it into the negative counterpart that there would be so much water that noone could come into contact with the bottom of the channel while floating or swimming. That construction is the product of flawed logic.

In the context of the remainder of the claim, the patent, and the prosecution history, it is clear that the patent teaches the

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<sup>70</sup> Doc. 32, Def. NBGS's Cl. Constr. Br., p. 8.

<sup>71</sup> Id.

possibility, not the necessity, that a participant not be in contact with the channel structure. The proper construction of "substantially prevent" is just what has been suggested by Plaintiff - "mostly or generally prevent."

5. Diving (Cls. 3, 7, 11, 14)

Plaintiff defines this word to mean "going underwater with the head below the water" without the requirement of a diving board or water deep enough to allow diving head first from any particular height.<sup>72</sup> Defendant NBGS suggests that the court construe "diving" "to require that the participant can dive in headfirst safely."<sup>73</sup>

In the claims, every mention of diving is in connection with the water reservoir and, in all but dependent claim 14, describes the reservoir as being "located and sized" for diving and other water recreation.<sup>74</sup> Claim 14 omits the "located and sized" language but depends from Claim 11, in which that language is included. Claim 11 recites "deeper areas for diving."

In layperson's terms, "dive" means to plunge headfirst, especially in the context of a body of water. See Webster's New World Dictionary 400 (3d College Ed. 1988). The court understands the parties' opposing engames with regard to this term, but neither has convinced the court that the patent lends itself to any other

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<sup>72</sup> Doc. 31, Pl.'s Opening Cl. Constr. Br., p. 12.

<sup>73</sup> Doc. 34, Def. NBGS's Resp. to Pl.'s Opening Cl. Constr. Br., p. 16.

<sup>74</sup> See Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent, col. 10, ll. 23-26, 53-56; col. 11, ll. 52-57; col. 12, ll. 10-12.

construction than the common meaning. The "diving" claims do not teach safety or height restrictions other than describing the reservoir as "located and sized" for diving and other activities. And only Claim 11 refers to the water depth.

The court construes "diving" to mean "plunging headfirst."

6. Predetermined (Cls. 1, 6, 11, 12)

Defendant NBGS requests that the construction of this term be "determined beforehand."<sup>75</sup> Plaintiff objects to defining this word at all because the term has a well-understood meaning, which he states is "settled or decided in advance."<sup>76</sup>

The court agrees with both parties on this. Predetermined is clearly understood and really needs no construction. However, Defendant NBGS and Plaintiff both offer legitimate definitions. Because the parties' constructions differ slightly, the court opts include both. Predetermined means "determined beforehand or settled or decided in advance."

7. Large Quantity of Water (Cls. 1, 6, 11)

Defendant NBGS contends that the claim language does not specify how much water is a large quantity and is therefore indefinite.<sup>77</sup> Plaintiff responds that Defendant NBGS fails to show that a person of ordinary skill in the field would be unable, based

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<sup>75</sup> Doc. 32, Def. NBGS's Cl. Constr. Br., p. 13.

<sup>76</sup> Doc. 33, Pl.'s Resp. to Def. NBGS's Cl. Constr. Br., p. 13.

<sup>77</sup> Doc. 32, Def. NBGS's Cl. Constr. Br., p. 14.

on the description of the invention in the specification, to comprehend what is meant by a large quantity of water.<sup>78</sup> The court agrees with Plaintiff.

Claim indefiniteness is a legal issue that the court addresses in connection with claim construction. See Telcordia Techs., Inc., 612 F.3d at 1376 (referring to indefiniteness as "a legal conclusion that is drawn from the court's performance of its duty as a construe of patent claims"). The Federal Circuit explained that it will not find a claim indefinite if it is "amenable to construction, however difficult that task may be." Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

When claim uses a word of degree, "the court must determine whether the patent's specification provides some standard for measuring that degree." Id. at 1381 (quoting Seattle Box Co. v. Indus. Crating & Packing, Inc., 731 F.2d 818, 826 (Fed. Cir. 1984)). A claim is not invalid simply because it includes imprecise language. Id. "[M]athematical precision is not required-only a reasonable degree of particularity and definiteness." Id.

With regard to the phrase "large quantity of water," Plaintiff distinguished the '896 Patent from prior art on the amount of water employed. The specification describes the dimensions of the channels and reservoir, the amount of flowing water and its depth

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<sup>78</sup> Doc. 33, Pl.'s Resp. to Def. NBGS's Cl. Constr. Br., p. 4.

at the various parts of the ride, and the rate of flow. In the description of the preferred embodiment, the patent explains:

The present invention moves large quantities of water a minimal elevation, creating a larger stream of fast moving water for rapids, chutes and channels. . . . The present ride lifts 125,000 GPM only 8.55 feet, and 80,000 GPM only 14.94 feet, a total of 205,000 [GPM]. Most existing water rides lift smaller quantities of water much higher.<sup>79</sup>

Other information, in addition to the dimensions of the ride, depth, and flow rate, includes:

The quantity of water at the elevated portion has a weight substantially greater than the weight of the participant whereby the participant is moved by flow of the water through the course at a predetermined velocity while maintaining a depth sufficient to allow the participant to swim in the water or float on the water surface.

. . . .

The size of the reservoir is such that the water height of the reservoir drops less than one foot when the pumps are running.<sup>80</sup>

As if that information were not enough for someone skilled in the art to comprehend the term "large quantity of water," the specification states that the ride "has a capacity of approximately 1.8 million gallons of water."<sup>81</sup> Even without providing a precise mathematical quantification, the patent provides sufficient information for a skilled artisan to determine how much water is a

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<sup>79</sup> Doc. 31-1, Ex. A to Pl.'s Opening Cl. Constr. Br., '896 Patent, col. 7, ll. 49-57.

<sup>80</sup> Id. at col. 8, ll. 16-22, 31-33.

<sup>81</sup> Id. at col. 8, ll. 4-6.

"large quantity."

The phrase "large quantity of water" is not indefinite and needs no further construction.

#### IV. CONCLUSION

With the issuance of this claim construction, the court sets the following deadlines:

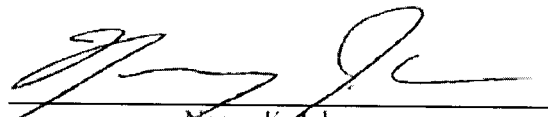
Completion of fact discovery: January 31, 2013

Completion of Expert Discovery: March 29, 2013

Dispositive Motion Deadline: April 15, 2013

Informal Settlement Efforts Deadline: April 30, 2013

**SIGNED** in Houston, Texas, this 26<sup>th</sup> day of October, 2012.

  
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Nancy K. Johnson  
United States Magistrate Judge